

# Opportunities for Energy Savings in Consumer Electronics

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2002 ACEEE Summer Study  
Informal Session  
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# Opportunities for Energy Savings (draft)

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Televisions	11.3 TWh/yr
Desktop computers (R&C)	7.5
VCRs	6.3
Computer monitors (R&C)	5.8
Cable/satellite boxes	5.5
Computer printers	3.5
Cordless phones/answering mach.	4.5
Audio equipment & DVDs	2.7
Battery chargers/cordless tools	1.8+

# Key Opportunities

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Televisions

Old & new E\*

Desktop computers (R&C)

Old & new E\*

VCRs

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Computer monitors (R&C)

Old & new E\*

Cable/satellite boxes

E\* (PS too?)

Computer printers (R&C)

Old & new E\*

Cordless phones/answering mach.

PS & E\*

Audio equipment & DVD

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Battery chargers/cordless tools

PS & maint.



# Mandatory Standards Being Considered

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Product	CA	Feds	Other States
External power supplies	X	X	
Chargers & cordless tools	X	X	
Cable boxes	X	?	X
Other standby sources	X	?	



# Energy Star Info for Selected Products

<u>Product</u>	<u>Avg. Stndby</u>	<u>E* T1 Level</u>	<u>Avail-ability</u>	<u>E* T2 Level</u>	<u>Avail-ability</u>
Audio	1.0-4.0	2 W	>300	1 W	~200
DVD	4.5	3		1	
Answering	3.9	3.3	None	1	None
Cordless phone	3.9	3.3	53	1	None
Combo unit cordless/answer	5.2	4.0	28	1	None
STB: analog	11.0	3	None	7	None
digital	23.0	15	8 cable & 2 satellite	7	5



# Suggested Next Steps

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		Tier 2	
	<u>Promote?</u>	<u>Incentives</u>	<u>Notes</u>
Audio/DVD	Probably	No	
Telephony	Yes	Yes	\$ to manufac.
Cable boxes	Yes	Perhaps	Work with cable Co.'s

(Could offer E\* & power supply incentives together)



# Battery Chargers and Cordless Tools

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- Include power supplies - usually inefficient
- Typically draw ~4-6 Watts after battery fully charged (~46% of hours in the year)
- Smart circuits can limit maintenance power
- Further research needed
- Could address power supplies in 2003, but charging power not until 2004



# Possible Program Opportunities

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- TV's -- engage in next phase of E\*
- PC's/monitors -- engage in next phase of E\*
- Cable boxes -- promote/incentives for E\*; work with cable co's & perhaps regulators
- Telephony -- promote E\*, PS bulk purchase, incentives for E\* tier 2
- Audio equipment -- promote E\*
- Chargers/cordless -- research, PS purchase

